

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A method for producing stable adhesion cell lines of mammalian neural precursor cells *in vitro*, comprising the steps of:

a) preparing a an adhesion culture of neural precursor cells in a serum-free medium;

b) culturing the neural precursor cells in the presence of a first mitogen, wherein said first mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF $\alpha$  and combinations thereof;

c) introducing a c-myc construct into the cells, wherein the c-myc construct is comprised of a c-myc cDNA fused with at least one element selected from the group consisting of DNA for a ligand binding domain for an estrogen receptor, an androgen receptor, a progesterone receptor, a glucocorticoid receptor, a thyroid hormone receptor, a retinoid receptor, and an ecdysone receptor; and

d) further culturing the cells in a medium containing the first mitogen and a second mitogen,

wherein said second mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF $\alpha$ , serum and combinations

thereof, with the proviso that the second mitogen is other than the first mitogen,

wherein said medium containing the first mitogen and the second mitogen further comprises a myc-activating chemical selected from the group consisting of  $\beta$ -estradiol, RU38486, dexamethasone, thyroid hormones, retinoids, and ecdysone, and

~~wherein said stable cell lines maintain normal karyotypes and normal neuronal phenotypes beyond thirty cell doublings.~~

2-3. (Canceled).

4. (Original) The method of claim 1, wherein the mammalian neural precursor cells are derived from a human.

5. (Original) The method of claim 1, wherein the mammalian neural precursor cells are derived from an *in vitro* culture of pluripotent embryonic stem cells.

6-11. (Canceled).

12. (Currently Amended) A method for producing stable adhesion clonal cell lines of mammalian neural precursor cells *in vitro*, comprising the steps of:

a) preparing a an adhesion culture of neural precursor cells in a serum-free medium;

b) culturing the neural precursor cells in the presence of a first mitogen, wherein said first mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF $\alpha$  and combinations thereof;

c) introducing a c-myc construct and a selectable marker into the cells,

wherein the c-myc construct is comprised of a c-myc cDNA fused with at least one element selected from the group consisting of DNA for a ligand binding domain for an estrogen receptor, an androgen receptor, a progesterone receptor, a glucocorticoid receptor, a thyroid hormone receptor, a retinoid receptor, and an ecdysone receptor;

d) further culturing the cells in a medium containing the first mitogen and a second mitogen, wherein said second mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF $\alpha$ , serum and combinations thereof, with the proviso that the second mitogen is other than the first mitogen,

wherein said medium containing the first mitogen and the second mitogen further comprises a myc-activating

chemical selected from the group consisting of  $\beta$ -estradiol, RU38486, dexamethasone, thyroid hormones, retinoids, and ecdysone; and

e) collecting c-myc treated cells and co-culturing them with feeder cells free of the selectable marker and capable of supporting survival of the c-myc treated cells in a medium containing the first mitogen and the second mitogen, with the proviso that the second mitogen is other than the first mitogen;

~~wherein said stable clonal cell lines maintain normal karyotypes and normal neuronal phenotypes beyond thirty cell doublings.~~

13-14. (Canceled).

15. (Original) The method of claim 12, wherein the mammalian neural precursor cells are derived from a human.

16. (Original) The method of claim 12, wherein the mammalian neural precursor cells are derived from an *in vitro* culture of pluripotent embryonic stem cells.

17-22. (Canceled).